



UC Berkeley School of Information

The Organization of Knowledge

Concepts of Information i218
Geoff Nunberg

Feb. 11, 2009



Itinerary: 2/19

"Knowledge" and "Information"

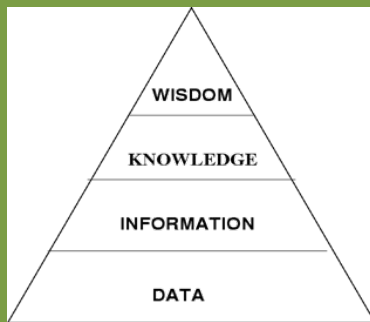
The shifting frame of knowledge

The modern organization of knowledge: complementary causes

The rise of the dictionary



"knowledge" and "information"



A spurious semantic field

Data are facts and statistics that can be quantified, measured, counted, and stored. Information is data that has been categorized, counted, and thus given meaning, relevance, or purpose. Knowledge is information that has been given meaning and taken to a higher level. Knowledge emerges from analysis, reflection upon, and synthesis of information. *Dr. Donald Hawkins, Information Today*





"knowledge" and "information"

In human discourse systems information is the meaning of statements as they are intended by the speaker/writer and understood/misunderstood by the listener/reader. Knowledge is embodied in humans as the capacity to understand, explain and negotiate concepts, actions and intentions. *H. Albrechtson, Institute of Knowledge Sharing, Denmark*

Data are sensory stimuli that we perceive through our senses. Information is data that has been processed into a form that is meaningful to the recipient. Knowledge is what has understood and evaluated by the knower. *Prof. Shifra Baruchson–Arbib, Bar Ilan University, Israel*

Data are the basic individual items of numeric or other information, garnered through observation; but in themselves, without context, they are devoid of information. Information is that which is conveyed, and possibly amenable to analysis and interpretation, through data and the context in which the data are assembled. Knowledge is the general understanding and awareness garnered from accumulated information, tempered by experience, enabling new contexts to be envisaged. *Dr. Quentin L. Burrell, Isle of Man International Business School, Isle of Man*



"knowledge" and "information"

Data are raw material of information, typically numeric. Information is data which is collected together with commentary, context and analysis so as to be meaningful to others. Knowledge is a combination of information and a person's experience, intuition and expertise. Prof. Charles Oppenheim, Loughborough University, UK

Data are facts that are the result of observation or measurement. Information is meaningful data. ... Knowledge is internalized or understood information that can be used to make decisions. *Prof. Carol Tenopir, University of Tennessee*



"knowledge" and "information"

Data are raw evidence, unprocessed, eligible to be processed to produce knowledge. Information is the process of becoming informed; it is dependent on knowledge, which is processed data. Knowledge perceived, becomes information. Knowledge is what is known, more than data, but not yet information. *Prof. Richard Smiraglia, Long Island University, USA*



"knowledge" and "information"

Putting the three concepts ("data", "information", and "knowledge") as done here, gives the impression of a logical hierarchy: information is set together out of data and knowledge comes out from putting together information. This is a fairytale. *Prof Rafael Capurro, University of Applied Sciences, Stuttgart, Germany*



Defining "knowledge"

Particularistic/individual senses

OED:

5a The fact of knowing a thing, state, etc., or (in general sense) a person; acquaintance; familiarity gained by experience. 1771 *His knowledge of human nature must be limited indeed.*

8. a. Acquaintance with a fact; perception, or certain information of, a fact or matter; state of being aware or informed; consciousness (of anything). The object is usually a proposition expressed or implied: e.g. the knowledge that a person is poor, knowledge of his poverty.

10. Acquaintance with a branch of learning, a language, or the like; theoretical or practical understanding of an art, science, industry, etc



Defining "knowledge"

Collective senses

13. The sum of what is known. *De Quincey, 1860 All knowledge may be commodiously distributed into science and erudition.*



Defining "knowledge"

Collocations

knowledge economy *n.* *Econ. and Business* an economy in which growth is thought to be dependent on the effective acquisition, dissemination, and use of information, rather than the traditional means of production **knowledge management** *n.* *Econ. and Business* the effective management of the sharing and retention of information in an organization; the use of management techniques to optimize) the acquisition, dissemination, and use of knowledge. **knowledge work** *n.* work which involves handling or using information. **knowledge worker** *n.* a person whose job involves handling or using information.

[Note: almost never translated with equivalent of "knowledge"]

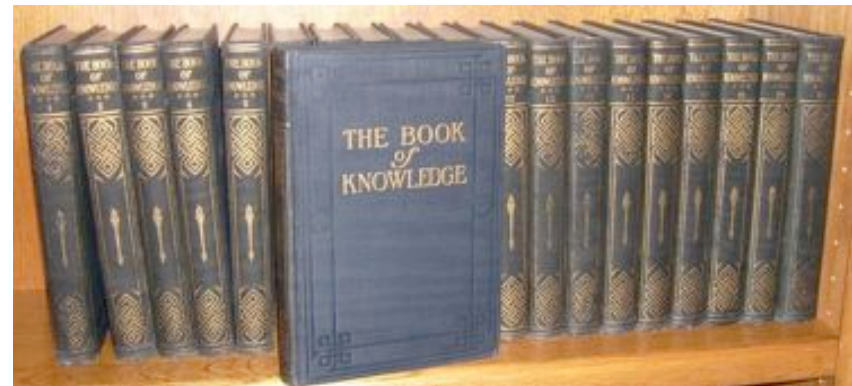
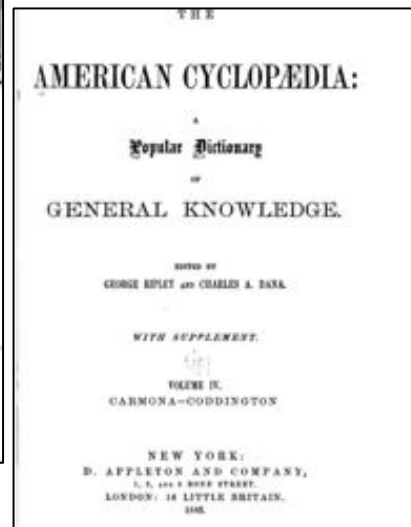
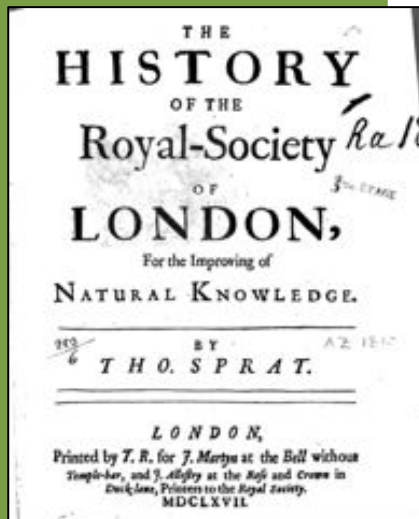


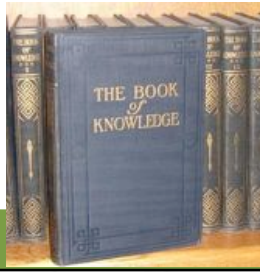
Collective knowledge: the missing arguments

Collective senses: knowledge as a three-place relation

I3. The sum of what is known [about X] [by Y]

Medical knowledge vs medical information: what is the difference?





Collective knowledge: the missing arguments

Collective senses: knowledge as a three-place relation

I3. The sum of what is known [about X] [by Y]

What qualifies a proposition as c-knowledge?

P is collectively significant (to everyone?)

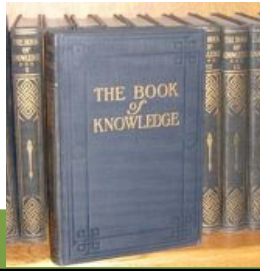
It's snowing in Chicago./It often snows in Chicago.

"We are out of paper towels"/Paper towel consumption is 50% higher in America than in Europe/Arthur Scott introduced the first paper towel in 1931.

GN was born in Manhattan./William Tell was born in Bürglen, Switzerland.



Collective knowledge: the missing arguments



Collective senses: knowledge as a three-place relation

I3. The sum of what is known [about X] [by Y]

What qualifies a proposition as c-knowledge?

P must be collectively accessible (to everyone?)

"The third-century Chinese had knowledge of porcelain"

In that medical knowledge doubles every 3.5 years or less, by 2029, we will know at least 256 times more than we know today. As a result, it is not impracticable nor improbable to expect that humankind will reach the point where we'll know how to substantially slow or perhaps even stop aging,



Quantifiable Knowledge

C-knowledge can (in theory) be quantified

In that medical knowledge doubles every 3.5 years or less, by 2029, we will know at least 256 times more than we know today.

Today it is recognized that medical knowledge doubles every 6–8 years, with new medical procedures emerging everyday...

Medical knowledge doubles every seven years.

...medical knowledge doubles itself every 17 years.

Medical knowledge doubles every two years, and with that kind of growth it is nice to know that Children's Hospital of Michigan offers plenty of research...

Medical Knowledge doubles every 19 years (22 months for AIDS literature) — Physician needs 2 million facts to practice



What's the difference between e-Information and e-Knowledge?

...Thus the volume of new medical information doubles every 10 to 15 years and increases tenfold in 23 to 50 years.

Medical information doubles every 19 years. ... • Scientific information doubles every five years. • Biological information, doubles every five years. .

Medical Information Doubles every Four Years.

Medical information doubles every three years!

There are about 20000 - 30000 journals published in the discipline and the amount of medical information doubles every fifth year.



Material Representations of Knowledge



Presentation of the Pomeranian Kunstschränk to Duke Philip II of Pomerania-Stettin



The Frames of Knowledge

Shifting conceptions and forms of knowledge: 1500-1750

Varieties of knowledge (Burke): private/public; *scientiae/ artes*; liberal/useful, etc.

Burke traces shifts in the "tripod" of the curriculum, library (including the bibliography) and the encyclopedia.



The 15th-Century Curriculum

The *enkyklios paideia* ("circle of learning"):

Trivium: grammar, logic, rhetoric

Quadrivium: arithmetic, astronomy, geometry, music

The three philosophies: ethics, metaphysics, "natural philosophy"

Higher faculties: theology, medicine, law





Changing Frames of Knowledge

Within 200 years, something like the mod, system emerges.

Responses to influences that are:

Pragmatic/material

Philosophical/academic

Symbolic/political

(Not independent...)



Changing Frames of Knowledge

Within 200 years, something like the mod, system emerges.

Responses to influences that are:

Pragmatic/material

Philosophical/academic

Symbolic/political

(Not independent...)

But how can we tell that the system of knowledge has changed?



Material Representations of Knowledge

Knowledge and the role of the "trésor"

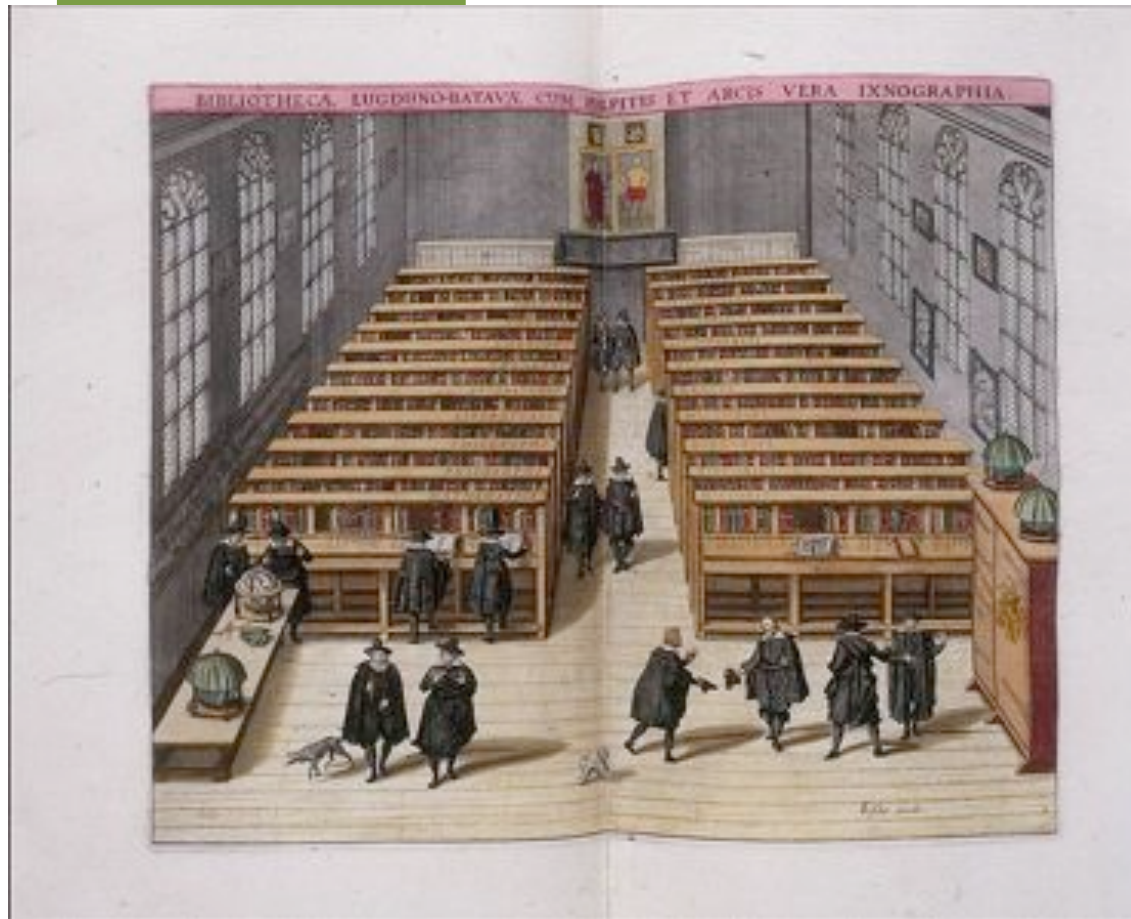
Libraries, anthologies, dictionaries, in a word "treasuries" [trésors], alongside of encyclopedic collections, delimit a vast territory on which are cast the signs required for knowledge, the expression of identities, and communication among the members of the group.

-Alain Rey, "Les trésors de la langue," 1986



Material Representations of Knowledge

Curriculum mirrored in form of library (bibliographies)



Leiden University Library, 1610



Material Representations of Knowledge



Curriculum mirrored in form of library (bibliographies)





Knowledge and the "Virtuosi"

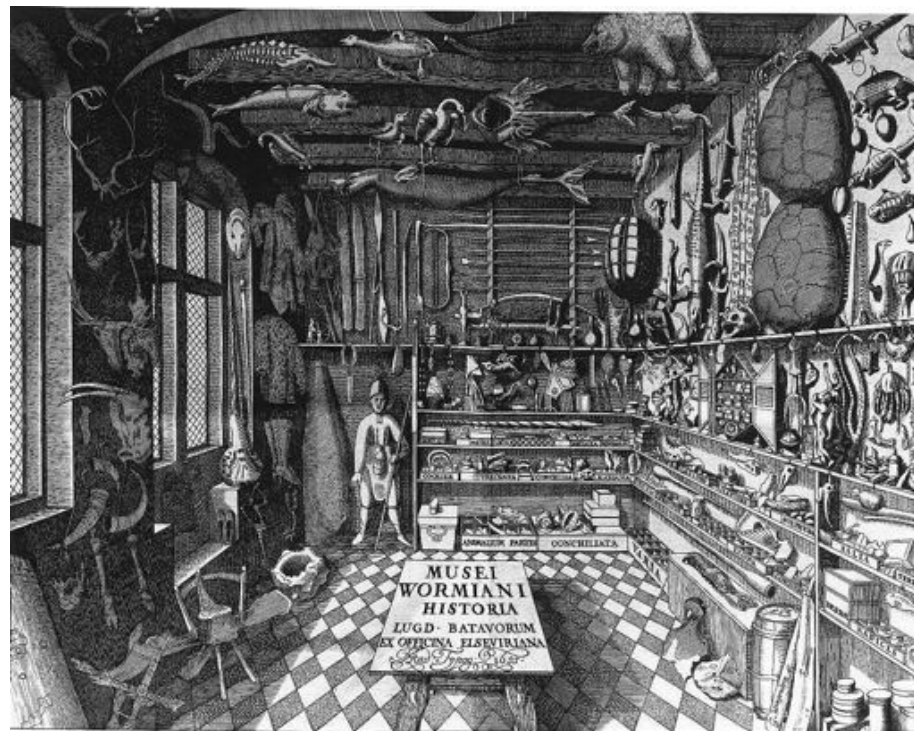


"He Trafficks to all places, and has his Correspondents in every part of the World; yet his Merchandizes serve not to promote our Luxury, nor encrease our Trade, and neither enrich the Nation, nor himself. A Box or two of Pebbles or Shells, and a dozen of Wasps, Spiders and Caterpillers are his Cargoe. He values a Camelion, or Salamander's Egg, above all the Sugars and Spices of the West and East-Indies... He visits Mines, Cole-pits, and Quarries frequently, but not for that sordid end that other Men usually do, viz, gain; but for the sake of the fossile Shells and Teeth that are sometimes found there." (Mary Astell, "*Character of a Virtuoso*," 1696)



Representations of Knowledge: The *Kunstkammer*

Organization of knowledge mirrored in form of *Kunstkammer*, cabinets of curiosities, *Wunderkammer*, etc.



Museum Wormianum, 1655



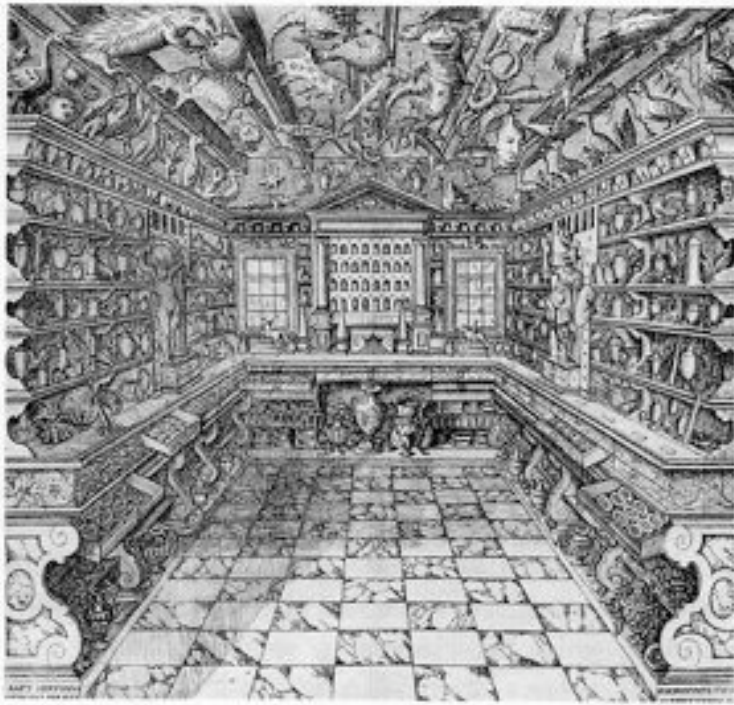
Representations of Knowledge: The Kunstkammer



Natural History Cabinet, Naples, 1599



Representations of Knowledge: The Kunstkammer



The Kunstkammer of Rudolph II was a carefully organized "museum" articulated through an understanding of the world... Its contents were organised to exhibit a world picture, with objects that symbolised all aspects of nature and art, as conceptualized by the occult philosophers... This organisation depended on the concept of resemblance, where the objects and their proximities suggested macrocosmic microcosmic links.

Eilean Hooper-Greenhill, *Museums and the Organisation of Knowledge*



Representations of Knowledge: The Studiolo



Studiolo of Francesco I
Florence (1570)



Kunstkammer, 1636



Representations of Knowledge: The Kunstschränk

The Kunstschränk (art cabinet or art shrine)





Representations of Knowledge: The Kunstschränk

The Kunstschränk

Presentation of the
Pomeranian Kunstschränk
to Duke Philip II of
Pomerania-Stettin, 1615)





From Cabinets to Museums

Kunstkammers first made available for public viewing in mid-17th. C (Kunstmuseum Basel, 1661)

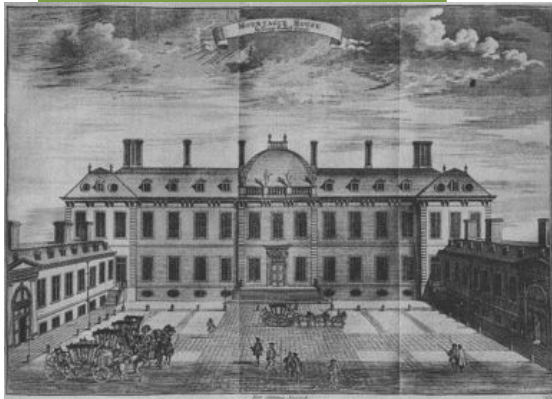
Public museums in 18th c:

British Museum, 1759, containing cabinet of curiosities assembled by Hans Sloan, ms collections, Royal Library. Later: collections of antiquities, etc.

Uffizi Gallery, Florence, 1765

Belvedere Palace, Vienna, 1781

Louvre Palace opened to public in 1793 with royal collections; augmented by Napoleon



Montague House, home of original British Museum in Bloomsbury



17th c. Galleries

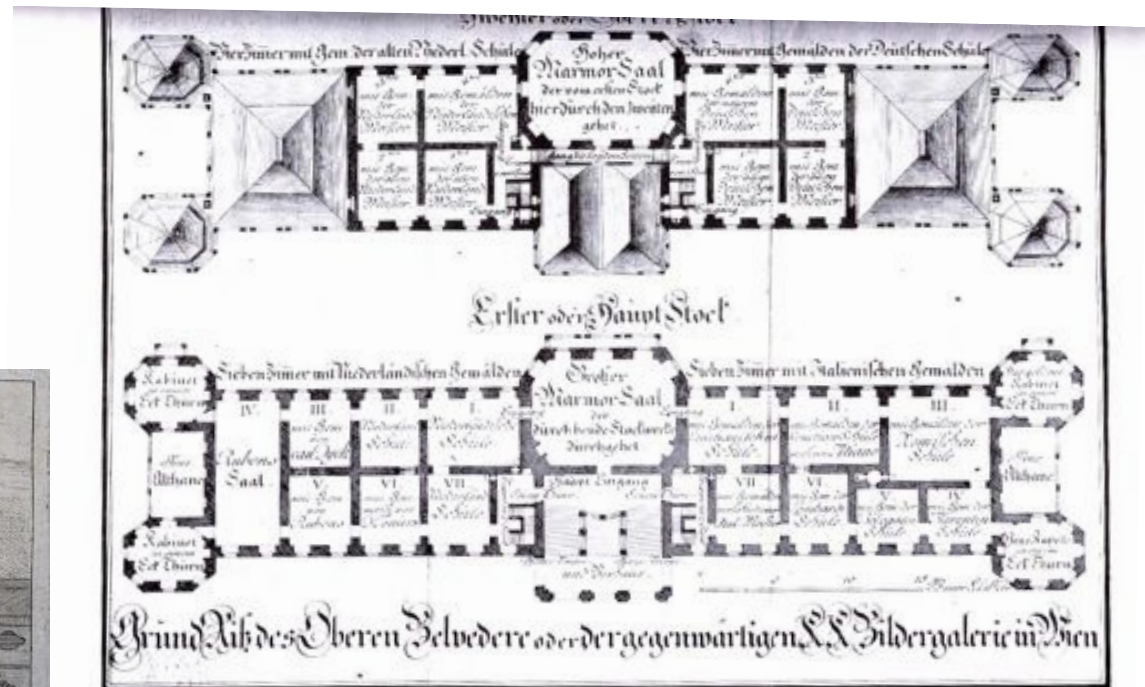


21. *The Imperial Gallery in Prague*, by Johann Betschneider, 1714. The paintings are arranged according to the visual and decorative effect.



18th c. Galleries

Painting Galleries,
Schloss
Belvedere,
Vienna, 1781



29 Histories of Art were created in many of the galleries of Europe. This plan of the paintings gallery in the Schloss Belvedere in 1778, shows how the works were grouped by country, and within that, by date, by (geographical) school, or by individual artist. This is in marked contrast to the forms of display shown in Plate 23.



Pragmatic Issues: Early Modern "Information Overload"



Pragmatic Issues: Early Modern "Information Overload"

As long as the centuries continue to unfold, the number of books will grow continually, and one can predict that a time will come when it will be almost as difficult to learn anything from books as from the direct study of the whole universe. It will be almost as convenient to search for some bit of truth concealed in nature as it will be to find it hidden away in an immense multitude of bound volumes.
—Denis Diderot, 1755



Pragmatic Forces: Perceptions of "Information Overload"



We have reason to fear that the multitude of books which grows every day in a prodigious fashion will make the following centuries fall into a state as barbarous as that of the centuries that followed the fall of the Roman Empire. Unless we try to prevent this danger by separating those books which we must throw out or leave in oblivion from those which one should save and within the latter between what is useful and what is not. Adrien Baillet, 1685



"That horrible mass of books which keeps on growing, [until] the disorder will become nearly insurmountable." Gottfried Leibniz, 1680

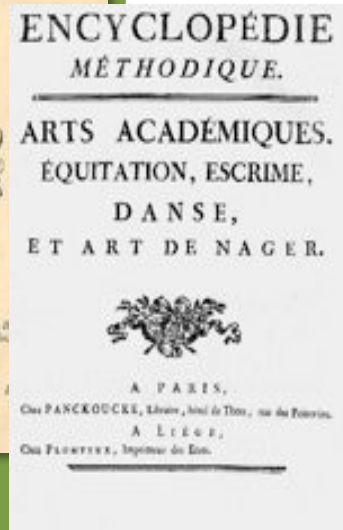
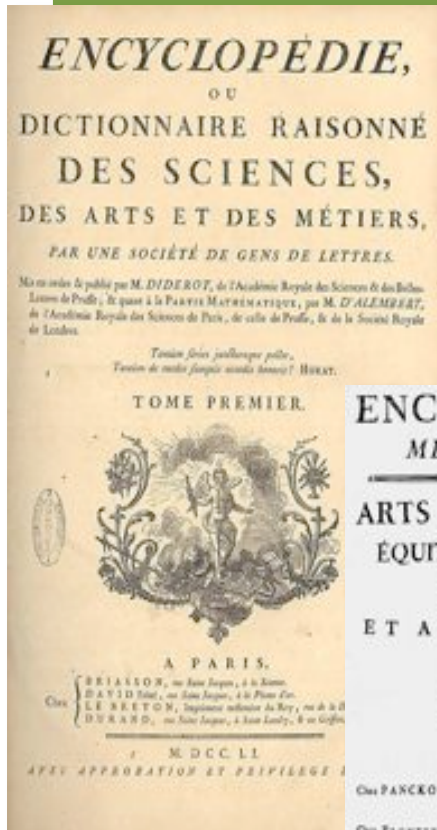


The Reorganization of Libraries

Antonfrancesco Doni, 1550: there are “so many books that we do not have time to read even the titles.”

Gabriel Naudé proposes library organization scheme to “find books without labor, without trouble, and without confusion.”

Strategies for dealing with information overload



Compendia and reference books (*répertoires* or *trésors*)

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—Denis Diderot, *Encyclopédie*, 1755



Distillations

Men of good will have extracted the substance of a thousand volumes and passed it in its entirety into a single small duodecimo, a bit like skillful chemists who press out the essence of flowers to concentrate it in a phial while throwing the dregs away."

Louis-Sebastian Mercier, *L'An 2440*, 1771





Strategies for dealing with information overload

Compendia and reference books (*répertoires* or *trésors*)

"I esteem these Collections extreamly profitable and necessary, considering, the brevity of our life, and the multitude of things which we are now obliged to know, e're one can be reckoned amongst the number of learned men, do not permit us to do all of ourselves." Gabriel Naudé, 1661 [librarian to Mazarin]

The *Cyclopaedia* will "answer all the Purposes of a Library, except Parade and Incumbrance." Ephraim Chambers, 1728



Strategies for dealing with information overload

BUT:

“So many summaries, so many new methods, so many indexes, so many dictionaries have slowed the live ardor which made men learned... All the sciences today are reduced to dictionaries and no one seeks other keys to enter them.”

M. Huet, 1722



Strategies for dealing with information overload



The most accomplished way of using books at present is twofold. Either, first, to serve them as men do Lords, learn their titles exactly and then brag of their acquaintance :—or, secondly, which is indeed the choicer, the profounder, and politer method, to get a thorough insight into the Index, by which the whole book is governed and turned, like fishes, by the tail. For to enter the palace of Learning at the great gate requires an expense of time and forms ; therefore men of much haste and little ceremony are content to get in by the back-door. ... Thus men catch knowledge by throwing their wit on the posteriors of a book, as boys do sparrows by flinging salt upon the tail."

Jonathan Swift, "Tale of a Tub," 1704



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Jonathan Swift, "Tale of a Tub," 1704

...How Index-learning turns no student pale,
Yet holds the eel of Science by the tail.

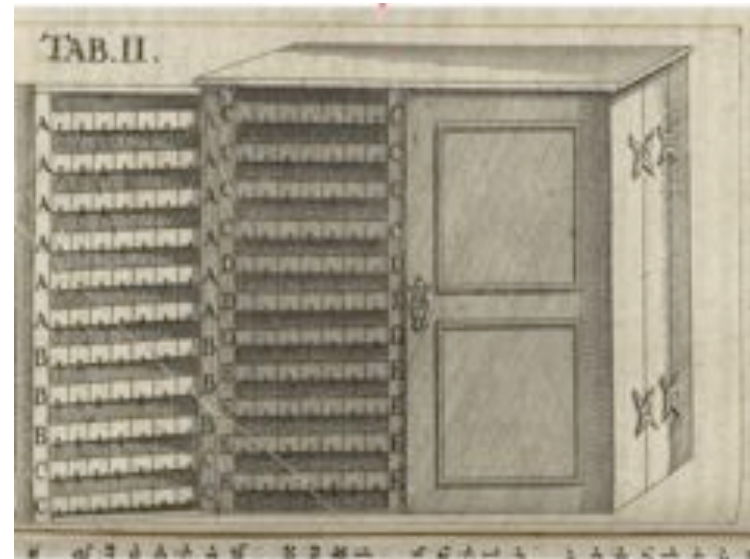
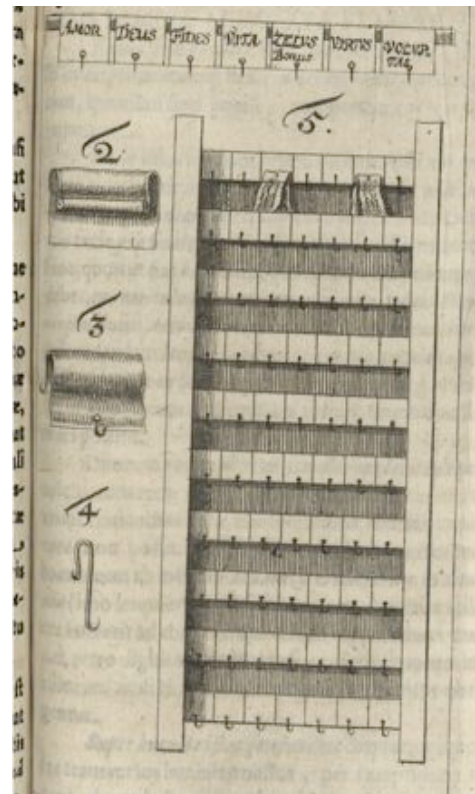
Pope, "The Dunciad," 1728





Strategies for Dealing with Information Overload

Note-taking system of Vincent Placcius, from *De arte excerptendi*, 1689





Philosophical Issues: Reorganizations of Knowledge



The Classificatory Urge: Thematic Organization

c(9th c.): "Book of the Best Traditions"

1. Power
2. War
3. Nobility
4. Character
5. Learning and eloquence
6. Asceticism
7. Friendship
8. Prayer
9. Food
10. Women

فقالوا: "بايع." فقال: "إن أنا لم أفعل فمه؟"
فقالوا: "أذا و الله الذي لا اله الا هو، نضرب عنقك!"
فقال: "أذا تقتلون عبد الله و اخا رسوله!"
فقال عمر: "أما عبد الله، فنعيم. أما اخو رسوله، فلا!"
و ابو بكر ساكت لا يتكلم. فقال له عمر: "ألا تأمر فيه بامرك؟"
فقال: "ألا أكرهه على شيء ما كانت فاطمة الى جنبه."

The Classificatory Urge: Thematic Organization



Vincent de Beauvais, *Speculum triplex*,
1244, in 3 divisions:

Speculum naturale: God, angels & devils, man,
the creation, and natural history

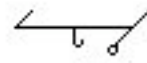
Speculum doctinale: Grammar, logic, ethics,
medicine, crafts...


Speculum historiale: History of the world...



Wilkins' universal language

Explaining the symbol



The generic character  doth signify the genus of space. the acute angle on the left side doth denote the first difference, which is Time. The other affix signifies the ninth species under the differences, which is Everness. The Loop at the end of this affix denotes the word is to be used adverbially; so that the sense of it must be the same which we express by the phrase, For Ever and Ever.

John Wilkins "An Essay Towards a Real Character and a Philosophical Language' 1668

de, an element

deb, the first of the elements, fire

deba, a part of the element fire, a flame

"children would be able to learn this language without knowing it be artificial; afterwards, at school, they would discover it being an universal code and a secret encyclopaedia." Borges



Wilkins' universal language

... a certain Chinese encyclopaedia entitled 'Celestial Empire of benevolent Knowledge'. In its remote pages it is written that the animals are divided into: (a) belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.

there is no classification of the Universe not being arbitrary and full of conjectures

Jorge Luis Borges



New Schemes of Organization: Philosophical Influences



Francis Bacon's scheme puts man at the center:

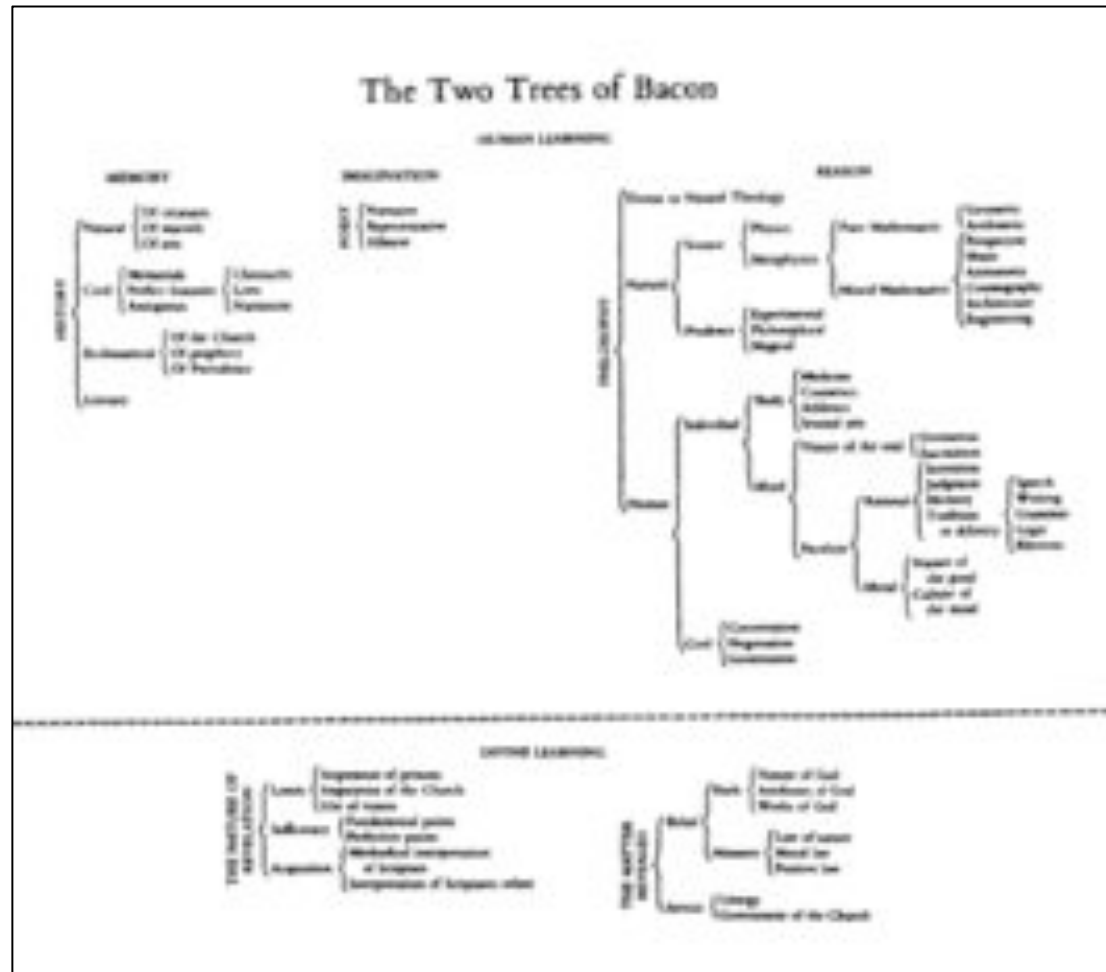
Nature (astronomy, meteorology, etc.).

Man (anatomy, powers, actions),

Man acting on nature (medicine, visual arts, arithmetic),,,

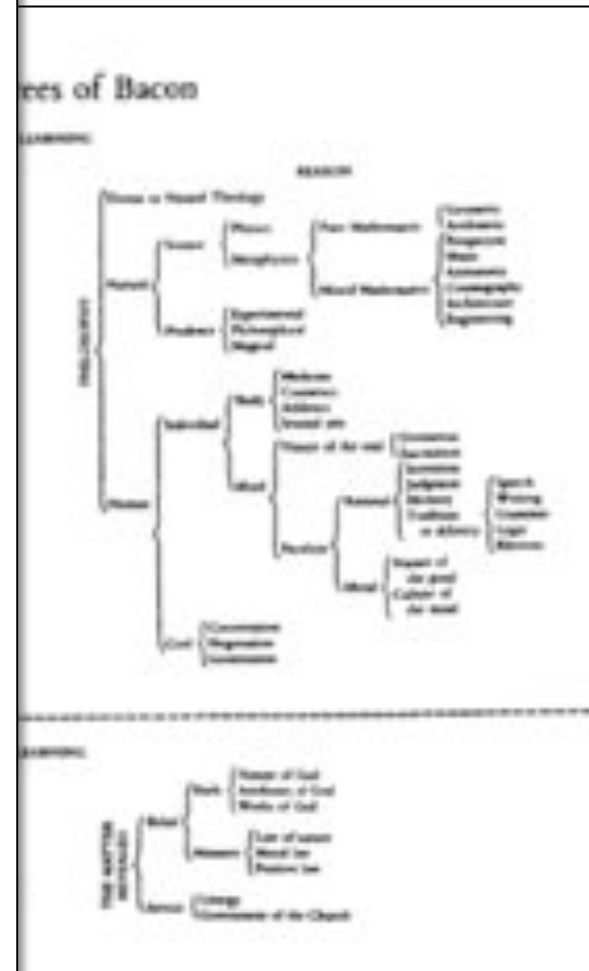


The Tree of Bacon





The Tree of Bacon

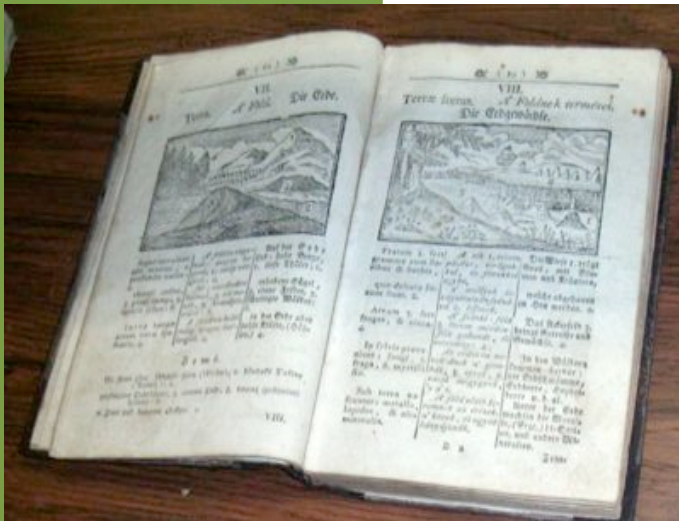




New Schemes of Organization: Didactic Objectives

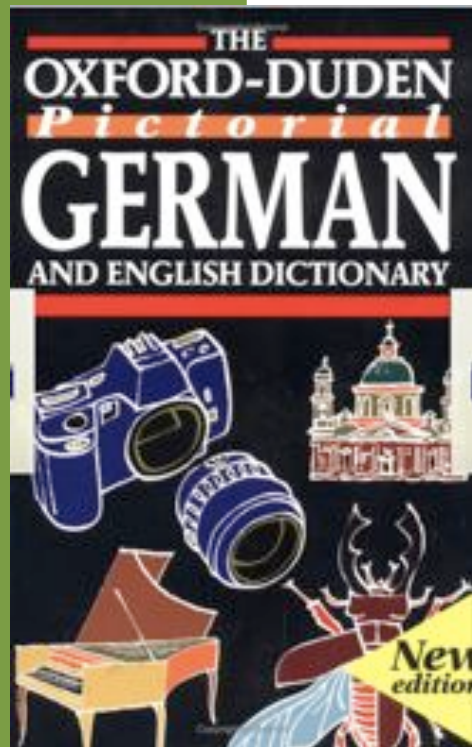
Comenius (Amos Komensky), *Orbis sensualium pictus*, 1658

1. Elements, firmament, fire, meteors
2. Waters, earths, stones, metals,
3. Trees, fruits, herbs, shrubs
4. Animals
5. Man and his body...
20. Providence, God and the angels,,





Comenius's Descendants





Comenius's Descendants

Peter Marc Roget: 1779-1869



P. M. Roget.

THESAURUS
OF
ENGLISH WORDS AND PHRASES,
CLASSIFIED AND ARRANGED
IN A
TO FACILITATE THE EXPRESSION OF IDEAS
AND USED IN
LITERARY COMPOSITION.

PETER MARK ROGET, M.D., F.R.S.

PROFESSOR OF THE ROYAL COLLEGE OF PHYSICIANS,
MEMBER OF THE SOCIETY OF THE HISTORY OF MEDICINE,
OF THE LITERARY AND PHILOSOPHICAL SOCIETY, ETC. OF BIRMINGHAM, LONDON, &c.
LONDON, PRINTED BY T. CLAY, BARRINGTON, ST. PAUL'S CHURCH-YARD.

Author of
THE "ASSOCIATED THESAURUS OF ENGLISH AND FRENCH VOCABULARY,"
&c.

"It is impossible we should thoroughly understand the nature of the world, unless we
first properly consider and arrange the terms which it contains." — John Locke.

FOURTH EDITION, ENLARGED AND IMPROVED.



Comenius's Descendants



P. M. Roget.

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ON MEDICINE, PHYSIC, AND SURGERY, ST. GEORGE'S HOSPITAL.

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Etc.

"It is impossible we should thoroughly understand the nature of the world, and
the property matter and energy the human structure." — "The Encyclopedia"

FOURTH EDITION, ENLARGED AND IMPROVED.

PLAN OF CLASSIFICATION.

	Sec.	No.
I. ABSTRACT RELATIONS	1. EXISTENCE	1 to 8
	2. RELATION	9—24
	3. QUANTITY	25—57
	4. ORDER	58—83
	5. NUMBER	84—105
	6. TIME	106—139
	7. CHANGE	140—152
	8. CAUSATION	153—179
II. SPACE	1. GENERALLY	180—191
	2. DIMENSIONS	192—239
	3. FORM	240—263
	4. MOTION	264—315
III. MATTER	1. GENERALLY	316—320
	2. INORGANIC	321—356
	3. ORGANIC	357—449
IV. INTELLECT	1. FORMATION OF IDEAS	450—515
	2. COMMUNICATION OF IDEAS	516—599
V. VOLITION	1. INDIVIDUAL	600—736
	2. INTERSOCIAL	737—819
VI. AFFECTIONS	1. GENERALLY	820—826
	2. PERSONAL	827—887
	3. SYMPATHETIC	888—921
	4. MORAL	922—975
	5. RELIGIOUS	976—1000



The Emergence of Alphabetical Order

Alphabetical order already in use

Catholic index of prohibited books; Erasmus's proverbs, etc.

Practical advantages:

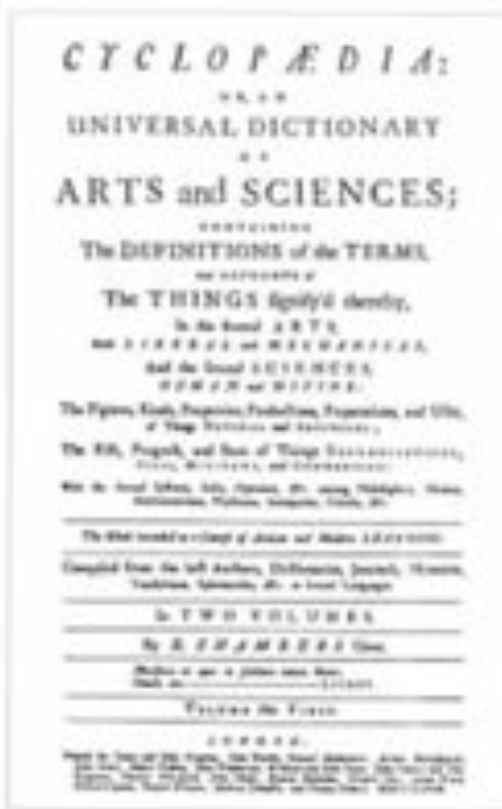
Facilitates access to particular entries (assuming a certain mode of reading)

Philosophically modest

"It might be more for the general interest of learning, to have the partitions thrown down, and the whole laid in common again, under one undistinguished name." Ephraim Chambers



Chamber's Cyclopædia,



The Tree of Chambers



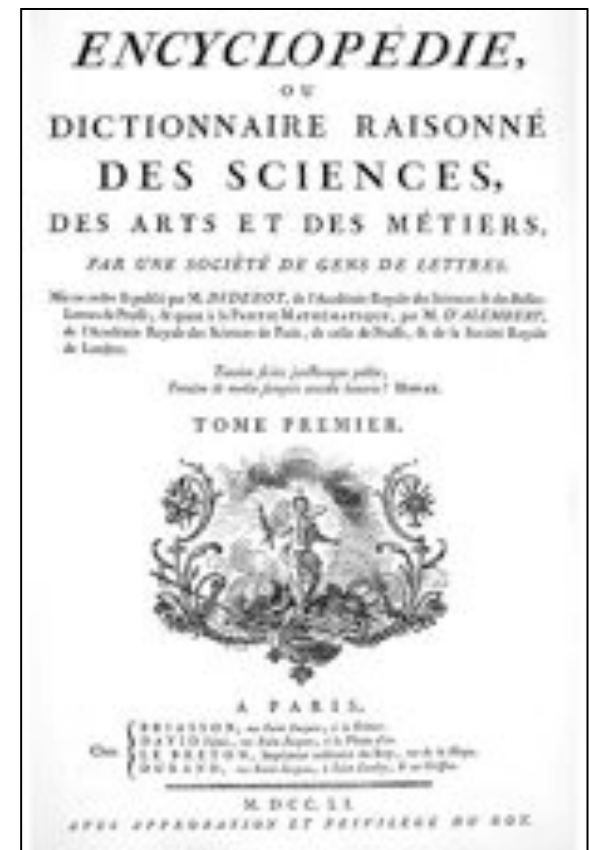


The Encyclopédie



Denis Diderot

First vol. appears in 1751; last in 1772





Mixing Theme and Alphabet



Jean d'Alembert

[T]he encyclopedic arrangement of our knowledge ... consists of collecting knowledge into the smallest area possible and of placing the philosopher at a vantage point, so to speak, high above this vast labyrinth, whence he can perceive the principle sciences and the arts simultaneously. From there he can see at a glance the objects of their speculations and the operations which can be made on these objects; he can discern the general branches of human knowledge, the points that separate or unite them; and sometimes he can even glimpse the secrets that relate them to one another. It is a kind of world map which is to show the principle countries, their position and their mutual dependence, the road that leads directly from one to the other.



The Enlightenment Plan



Jean d'Alembert

"The tree of human knowledge could be formed in several ways, either by relating different knowledge to the diverse faculties of our mind or by relating it to the things that it has as its object. The difficulty was greatest where it involved the most arbitrariness. But how could there not be arbitrariness? Nature presents us only with particular things, infinite in number and without firmly established divisions. Everything shades off into everything else by imperceptible nuances"



The Spatialization of the Language



That vast aggregate of words and phrases which constitutes the Vocabulary of English-speaking men presents... the aspect of one of those nebulous masses familiar to the astronomer, in which a clear and unmistakable nucleus shades off on all sides, through zones of decreasing brightness, to a dim marginal film that seems to end nowhere, but to lose itself imperceptibly in the surrounding darkness....

James Murray, "General Explanation" to the OED



The "canonicity" of knowledge.

Canonicity: All elements of all subdomains are ordered with regard to "centrality" of membership (i.e., discursive space is metrical, not just topological)

What defines a "reference book"

words: *civet* > *panther* > *cat*

authors: Michael Crichton > John Updike > Herman Melville

news events: rescued cat > school budget vote > earthquake

Also: tourist attractions (travel guides), artists (national collections), etc.

Buf cf. world records: ??Most hot dogs eaten > largest waistline > longest kiss



Canonicity, cont.

Canonicity permits "essentialist" abridgement:

"[M]en of good will have extracted the substance of a thousand volumes and passed it in its entirety into a single small duodecimo, a bit like skillful chemists who press out the essence of flowers to concentrate it in a phial while throwing the dregs away." L-S.Mercier, *L'An 2440*, 1771

Cf sense of "library" and "bibliothèque" to denote comprehensive publication series & catalogues

"If the lexicon of a language is indeed something like that of a circle, then... if one moves away from the center in concentric circles, the result should be a faithful image of the total lexicon." Henri Béjoint, *Tradition and Innovation in English Dictionaries*, 1992

i.e., In theory, every large dictionary contains every small dictionary

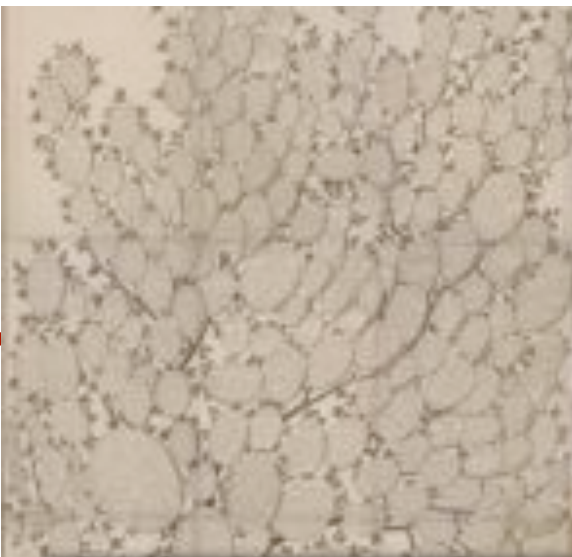
The Tree of Diderot & D'Alembert

ESSAI D'UNE DISTRIBUTION GÉNÉALOGIQUE
DES SCIENCES ET DES ARTS PRINCIPAUX.

Selon l'Explication détaillée du Système
des Connaissances Humaines dans le Discours
préliminaire des Editeurs de l'Encyclopédie
publiée par M. Diderot et M. d'Alembert,
À Paris en 1751

Reduit en cette forme pour
découvrir la connaissance
Humaine d'un coup d'oeil.

Par Chrétien Frederic Guillaume Roth,
À Weimar, 1769





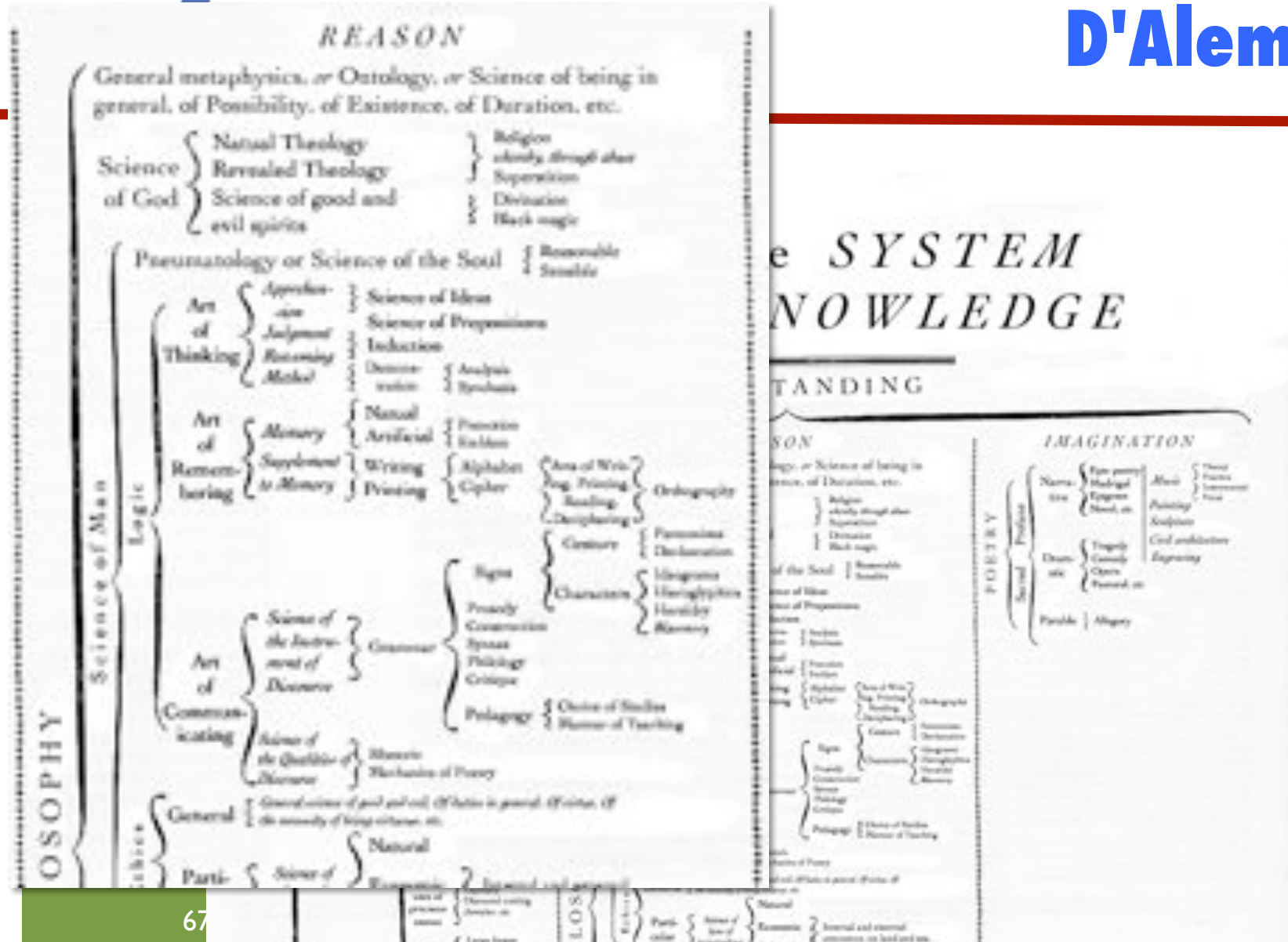
The Tree of Diderot & D'Alembert

MAP of the *SYSTEM* of *HUMAN KNOWLEDGE*





The Tree of Diderot & D'Alembert





Revisiting Thematic Organization



S. T. Coleridge, *Encyclopedia Metropolitana*, 1817-35. Four Sections:

I. Pure Sciences, 2 vols., 1,813 pages, 16 plates, 28 treatises, includes grammar, law and theology;

II. Mixed and Applied Sciences, 6 vols., 5,391 pages, 437 plates, 42 treatises, including fine arts, useful arts, natural history and its application, the medical sciences;

III. History and Biography, 5 vols., 4,458 pages, 7 maps, containing biography (135 essays) chronologically arranged, interspersed with (210) chapters on history (to 1815), as the most philosophical, interesting and natural form.

IV. Miscellaneous and lexicographical, 13 vols., 10,338 pages, 105 plates, including geography, a dictionary of English and descriptive natural history.



Revisiting Thematic Organization

1974: 15th edition of the *Encyclopedia Britannica* divided the Micropædia (short articles) the Macropædia (major articles) and the Propædia (Outline of Knowledge).

Pop

- Adult contemporary music
- Adult oriented pop music
- Adult standards
- Afiropop
- Arab pop
- Austropop
- Baroque pop
- Britpop
- Bastard pop
- Brazilian pop
- Bubblegum pop
- Chinese pop
- Contemporary Christian
- Country pop
- Dance-pop
- Disco
- Disco pops
- Dream pop
- Electropop/Technopop
- Eurobeat
- Euro disco
- Europop
- Experimental pop music
- French pop
- Greek Laiko pop
- Hind pop
- Hong Kong and Cant
- Hong Kong English p
- Hot Adult Contempor

Wikipedia: The logical end destructuring?

Ilma Julieta Urrutia Chang was Guatemala's national representative for the major beauty pageants in 1984.

The N battery is a type of battery. It has a battery. It has a diameter of 12 mm and a height of 30.2 mm. For a typical alkaline battery, the N size weighs 9 grams.

A System Requirements Specification (SRS) is a document where the requirements of a system that is planned to be developed are listed.

Protestants in Eritrea are about 91,232, which are 2% of the population.

Categories: 1926 births | 1991 deaths | African American musicians | American jazz bandleaders | American jazz composers | American jazz trumpeters | American songwriters | Avant-garde trumpeters | Bebop trumpeters | Cool jazz trumpeters | Deaths from stroke | Deaths from respiratory failure | People with sickle-cell disease | Grammy Award winners | Grammy Lifetime Achievement Award winners | Columbia Records artists | Capitol Records artists | Hard-bop trumpeters | Musicians from Illinois | Juilliard School of Music alumni | Miles Davis | Modal jazz trumpeters | People from Madison County, Illinois | People from St. Clair County, Illinois | Rock and Roll Hall of Fame inductees | St. Louis music | Third Stream trumpeters | Deaths from pneumonia | Burials at Woodlawn Cemetery (The Bronx) | Infectious disease deaths in California



The Creation of the Modern Dictionary



The Emergence of the Vernacular

Concerns that the vernacular (i.e., ordinary spoken) language is not an adequate vehicle for philosophy, history, etc.

Besyde Latyne, our langage is imperfite,
Quhilk in sum part, is the cause and the wyte [fault],
Quhy that Virgillis vers, the ornate bewte
In till our tounge, may not obseruit be
For that bene Latyne wordes, mony ane
That in our leid ganand [suitable language], translation has nane....
Gawin Douglas, 1553

For I to no other ende removed hym from his naturall and loftye Style
to our own corrrupt and base, or as al men affyrme it: most barbarous
Language: but onely to satisfye the instant requestes of a few my familiar
frendes.

Alex. Neville, preface to translation of Seneca, 1563

Shall English be so poore, and rudely-base
As not be able (through mere penury)
To tell what French hath said with gallant grace,
And most tongues else of less facunditie?
John Davies, 1618



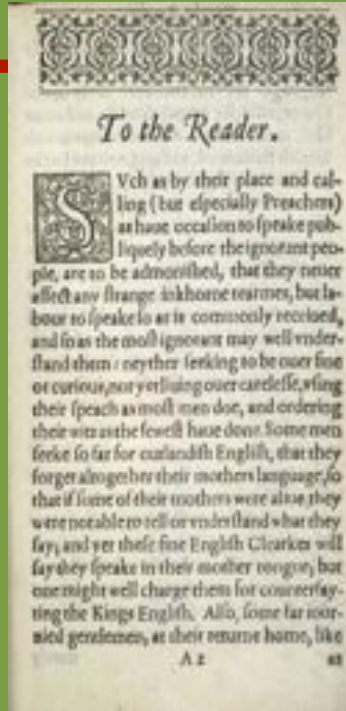
Refining the Vernacular

"Inkhorn words" -- learned words coined from Greek or Latin: *absurdity*, *dismiss*, *celebrate*, *encyclopedia*, *habitual*, *ingenious* (but also *eximious*, "excellent"; *obstetate*, "bear witness"; *adnichilate*, "reduce to nothing")

Among all other lessons this should first be learned, that wee never affect any straunge ynkehorne termes, but to speake as is commonly received: neither seeking to be over fine or yet living over-carelesse, using our speeche as most men doe, and ordering our wittes as the fewest have done. Thomas Wilson, *Arte of Rhetorique*, 1553



Refining & Codifying the Language



Advertisement to
Cawdrey's Table
Alphabeticall

Cawdrey, 1604:

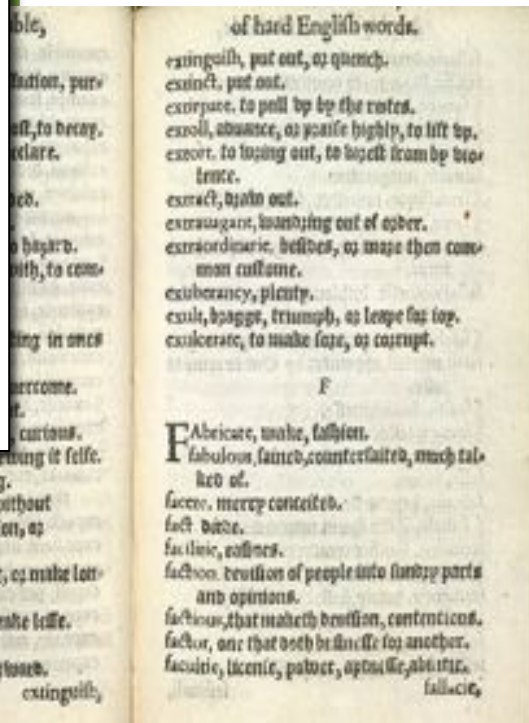
Some men seek so far for outlandish English, that they forget altogether their mothers language, so that if some of their mothers were alive, they were not able to tell, or understand what they say, and yet these fine English Clearks, will say they speak in their mother tongue; but one might well charge them, for counterfeyting the Kings English. Also, some far journied gentlemen, at their returne home, like as they love to go in forraine apparrell, so they will powder their talke with over-sea language.... Doth any wise man think, that wit resteth in strange words, or els standeth it not in wholesome matter, and apt declaring of a mans mind? Do we not speak, because we would have other to understand us? or is not the tongue given for this end, that one might know what another meaneth?



Early Wordbooks

Early dictionaries are usually bilingual (e.g., Latin-Cornish), organized thematically.

A
 Table Alphabeticall, con-
 teyning and teaching the true
 vwriting, and vnderstanding of hard
 vsuall English wordes, borrowed from
 the Hebrew, Greeke, Latine,
 or French. &c.
 With the interpretation thereof by
 plaine English words, gathered for the benefit &
 helpe of Ladies, Gentlewomen, or any other
 unskillfull persons.
 Whereby they may the more easilie
 and better vnderstand many hard English
 wordes, vvich they shall heare or read in
 Scriptures, Sermons, or elsewhere, and also
 be made able to vse the same aptly
 themselues.
Legere, et non intelligere, neglegere est.
 As good not read, as not to vnderstand.
 AT LONDON,
 Printed by I. R. for Edmund Wea-
 uer, & are to be sold at his shop at the great
 North doore of Paules Church.
 1604.
 Robert Cawdrey's Table Alphabeticall of 1604, the first English dictionary to explain the
 exotic to the 'unskillfull'.



First monolingual dictionaries appear in early c. 17. with Robert Cawdrey's *Table Alphabeticall of Hard Usual English Words*, 1604 (" for the benefit and helpe of Ladies, Gentlewomen, or other unskillful persons")



The desire for "illustration" in France

Would to God that some noble heart could employ himself in setting out rules for our French language... If it is not given rules, we will find that every fifty years the French language will have been changed and perverted in very large measure. G. Tory, 1529

Formation of the Académie Française



Modeled on the accademia della Crusca, Florence (1583), which published 1st dict. In 1612

Formed in 1635 by Cardinal Richelieu; 40 members ("les immortels")

1st ed. of dictionary appears in 1694 (6 or 7 others since then).

Small direct effect on the language.

Model for other language academies in Sweden, Spain, Romania, Portugal, Russia, etc. with varying degrees of influence





The Growing Sense of Crisis



John Dryden (1693): "we have yet no prosodia, not so much as a tolerable dictionary, or a grammar, so that our language is in a manner barbarous.



William Warburton (1747): the English language is "destitute of a Test or Standard to apply to, in cases of doubt or difficulty.... For we have neither Grammar nor Dictionary, neither Chart nor Compass, to guide us through this wide sea of Words."

How to coordinate public opinion via an impersonal print discourse between people who are anonymous to one another, in the absence of context...



An academy for English?



1697 Daniel Defoe proposes establishing an academy to be "wholly composed of gentlemen, whereof twelve to be of the nobility, if possible, and twelve private gentlemen, and a class of twelve to be left open for mere merit.... The voice of this society should be sufficient authority for the use of words."



Swift's "Proposal" 1712



Desire to "ascertain" (fix) the language:

A major concern among writers -- cf involvement of Addison, Swift, Pope, Johnson, etc.

1712: Swift writes "A Proposal for Correcting, Improving, and Ascertaining the English Tongue in a Letter to ...



My Lord; I do here in the Name of all the Learned and Polite Persons of the Nation, complain to your Lordship, as First Minister, the our Language is extremely imperfect; that its daily Improvements are by no means in proportion to its daily Corruptions; and the Pretenders to polish and refine it, have chiefly multiplied Abuses and Absurdities; and, that in many Instances, it offends against every Part of Grammar. ..



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My Lord; I do here in the Name of all the Learned and Polite Persons of the Nation, complain to your Lordship, as First Minister, the our Language is extremely imperfect; that its daily Improvements are by no means in proportion to its daily Corruptions; and the Pretenders to polish and refine it, have chiefly multiplied Abuses and Absurdities; and, that in many Instances, it offends against every Part of Grammar. ..





Swift's "Proposal" 1712

if [the language] were once refined to a certain Standard, perhaps there might be Ways found out to fix it for ever; or at least till we are invaded and made a Conquest by some other State...



In order to reform our Language, I conceive, My Lord, that a free judicious Choice should be made of such Persons, as are generally allowed to be best qualified for such a Work, without any regard to Quality, Party, or Profession. These, to a certain Number at least, should assemble at some appointed Time and Place, and fix on Rules by which they design to proceed.



Reactions to Swift's Proposal

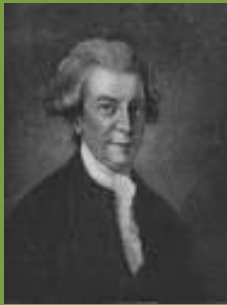
I should rejoice with him [Swift] if a way could be found out to *fix our language for ever*, that like the *Spanish* cloak, it might always be in fashion.

John Oldmixon, on Swift's Proposal...



The Growing Sense of Crisis

Continuing desire to fix the language:



"Suffer not our Shakespear, and our Milton, to become two or three centuries hence what Chaucer is at present, the study only of a few poring antiquarians, and in an age or two more the victims of bookworms." Thomas Sheridan



Cf Alexander Pope, "Essay on Criticism"
Short is the date, alas! of modern rhymes,
And 'tis but just to let them live betimes.
No longer now that Golden Age appears,
When patriach wits survived a thousand years:
Now length of fame (our second life) is lost,
And bare threescore is all ev'n that can boast:
Our sons their fathers' failing language see,
And such as Chaucer is shall Dryden be.



The Rejection of an Academy

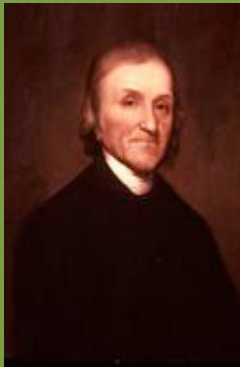
If an academy should be established for the cultivation of our stile, which I, who can never wish to see dependance multiplied, hope the spirit of English liberty will hinder or destroy...

Johnson, Preface to the *Dictionary*

As to a publick academy... I think it not only unsuitable to the genius of a *free nation*, but in itself ill calculated to reform and fix a language. We need make no doubt but that the best forms of speech will, in time, establish themselves by their own superior excellence...

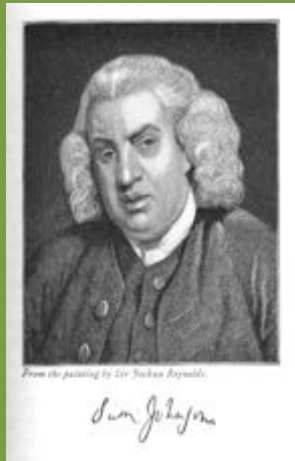
Joseph Priestly, *Rudiments of Grammar*, 1761

Contrast the role of the state in French....





Johnson to the Rescue



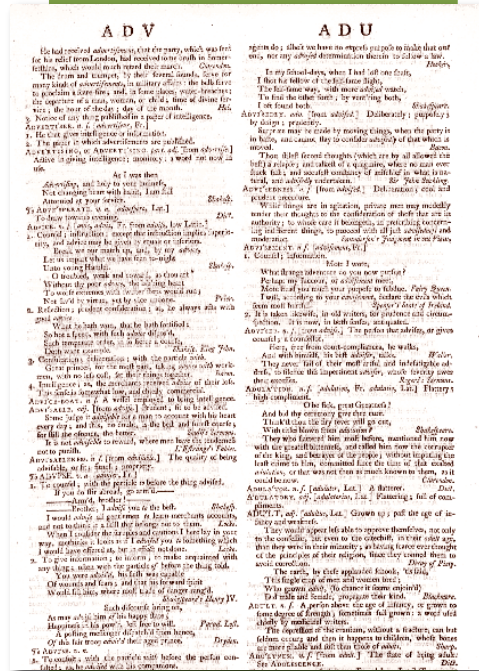
1746: J. approached by "conger" of booksellers to make dict. for 1500 guineas

Johnson installs himself and his amensenses in Gough Square to begin work on the Dictionary

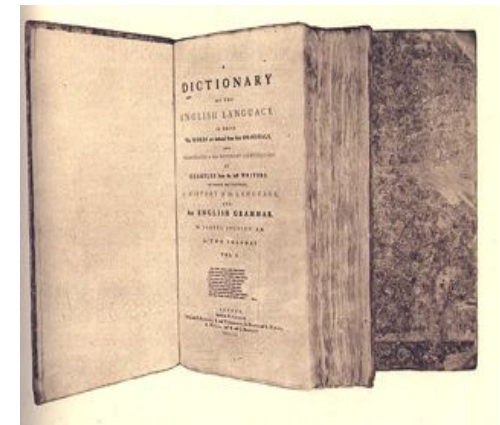
1747: The "Plan of an English Dictionary" appears



Johnson to the Rescue



1755 appearance of Johnson's Dictionary of the English Language.



He adulterates still: his thoughts lye with a whore. *B. Johns.*
ADULTERANT. *n. f.* [*adulterans*, Lat.] The person or thing which adulterates.
To ADULTERATE. *v. a.* [*adulterer*, Fr. *adulter*, Lat.]
 1. To commit adultery.
 But fortune, oh!
 Adulterates hourly with thine uncle John;
 And with her golden hand hath pluckt on France.
Shakesp. King John.
 2. To corrupt by some foreign admixture; to contaminate.
 Common pot-ashes, bought of them that sell it in shops, who are not so foolishly knavish, as to adulterate them with salt-petre, which is much dearer than pot-ashes. *Boyle.*
 Could a man be compos'd to such an advantage of constitution,
 L



The Success of the *Dictionary*



The Dictionary, with a Grammar and History of the English Language, being now at length published, in two volumes folio, the world contemplated with wonder so stupendous a work atchieved by one man, while other countries had thought such undertakings fit only for whole academies.

James Boswell, *Life of Johnson*



The Success of the Dictionary

At length, what many had wished, and many had attempted in vain, what seemed indeed to demand the united efforts of a number, the diligence and acuteness of a single man performed. The English Dictionary appeared; and, as the weight of truth and reason is irresistible, its authority has nearly fixed the external form of our language; and from its decisions few appeals have yet been made. Robert Nares, 1782

An accurate evaluation?

Johnson condemns words like *bully*, *coax*, and *job*.



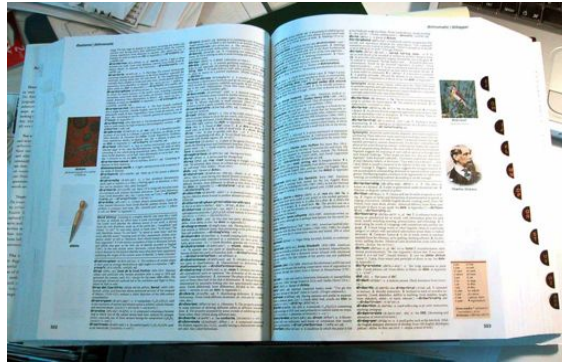
ADV

The first printed advertisement in the world, which was first printed in London, had received some credit in former times, which would not have been given to it otherwise. The form and language, by their former owners, have for many kinds of advertisements, in which they offer the address to publish a short line, and in some cases, where necessary, the extent of a long column, or the time of doing business, the hour of the day, or the month.

ADU

regards; either we have no regard given to make that out one, nor any other determination therein to follow a law. In my childhood, when I had but ten days, I then he follow of the children's play. The first time was, with some added words, To run the other hand, by running body. I set found both. Adulterate, adv. [from adulter,] Deliberately; guilefully; by design; poisoning. They may be made by mixing things, when the party is in health, and cause, they so continue adopted of that which is mixed. Thus, shall forest draught, which are by all allowed run before a ship, and called of a quantity, when no man ever drank full, and would certainly of mischief in what respect, and nobody understood, for the first thing. Adulterate, v. [from adulter,] Deliberately; evil; and wicked; poisoning. While things are in agitation, parties may not readily make their thoughts in the consideration of what has an authority; to which case it belongs, as producing concerning and hence things, to proceed with all just suspicion, and moderation. Adulterate, v. [from adulter,] Deliberately; evil; and wicked; poisoning.

The Persistence of Form



He adulterates fill: his thoughts lye with a whore. *B. Johns.*
ADULTERANT. n. f. [*adulterans, Lat.*] The person or thing which adulterates.
To ADULTERATE. v. a. [*adulteret, Fr. adultere, Lat.*]
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Common pot-ashes, bought of them that fell it in shops, who are not so foolishly knavish, as to adulterate them with salt-petre, which is much dearer than pot-ashes.
Boyle.
Could a man be composed to such an advantage of constitution,

The dictionary: the most conservative and conventionalized of literary genres.

Cf Adam Makkai: "Nothing significantly new has happened in lexicography since the first printed dictionaries after Gutenberg invented the printing of books."



Naturalizing the Dictionary

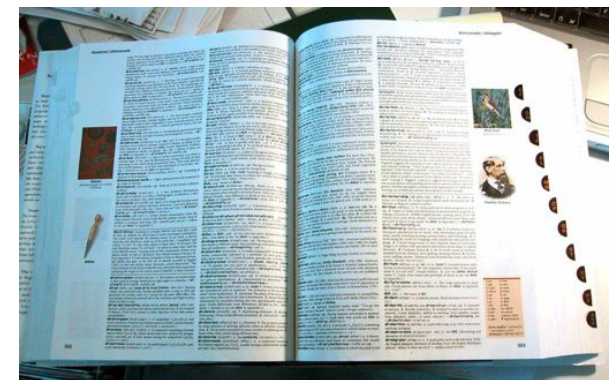
"The dictionary" like "the Periodic Table": Form answers to structure of represented domain + user needs...

The periodic table of the elements

	1A	2A	3A	4A	5A	6A	7A	8	1B	2B	3B	4B	5B	6B	7B	0		
1	H															He		
2	Li	Be									B	C	N	O	F	Ne		
3	Na	Mg									Al	Si	P	S	Cl	Ar		
4	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
5	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
6	Cs	Ba	L	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
7	Fr	Ra	A															
	L	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu		
	A	Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		

Legend:

- Metals
- Metalloids
- Non-metals
- Transition Metals
- Gases





Features of Johnson's Dictionary

Meanings illustrated by citations from English writers:
"The book written by books"

He *adulterers* still: his thoughts lye with a whore. *B. Johns.*
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To ADU'LTERATE. *v. a.* [*adulterer*, Fr. *adultero*, Lat.]
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Could a man be compos'd to such an advantage of constitution,
L tion,



The Didactic Uselessness of Definitions

Weakness of genus-differential definitions

disappointed MW: defeated in expectation or hope



The Didactic Uselessness of Definitions

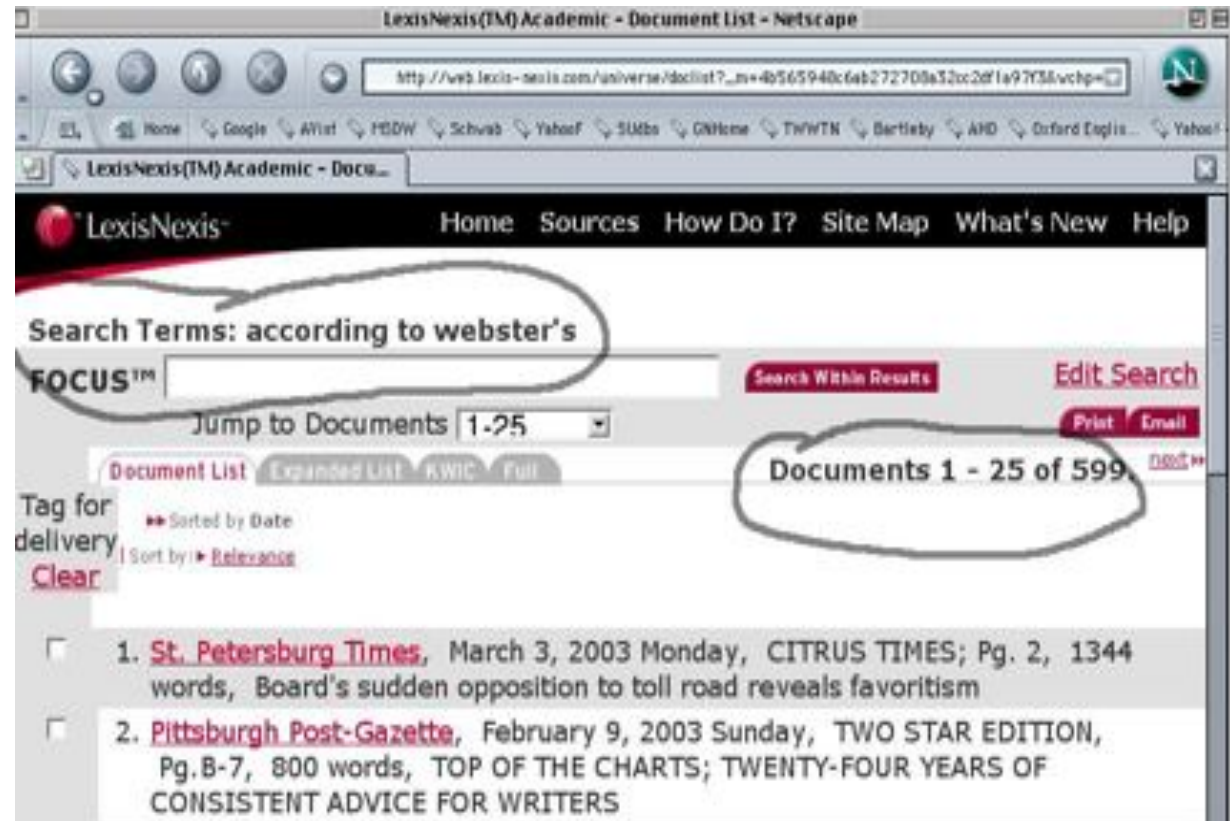
Weakness of genus-differentia definitions

disappointed MW: defeated in expectation or hope

disappointment is when you expect something to happen



The Symbolic Function of the Dictionary



The screenshot shows a Netscape browser window displaying the LexisNexis Academic search results for the query "according to webster's FOCUS™". The search results are sorted by date and relevance. The first two results are highlighted with hand-drawn circles. The first result is from the St. Petersburg Times, and the second is from the Pittsburgh Post-Gazette. The search interface includes a search bar, a "Jump to Documents" dropdown menu, and a "Documents 1 - 25 of 599" indicator.

LexisNexis™ Home Sources How Do I? Site Map What's New Help

Search Terms: according to webster's
FOCUS™ Search Within Results Edit Search

Jump to Documents 1-25 Print Email

Document List Expanded List KWIC Full Documents 1 - 25 of 599

Tag for delivery
Clear

Sorted by Date
Sort by: Relevance

1. [St. Petersburg Times](#), March 3, 2003 Monday, CITRUS TIMES; Pg. 2, 1344 words, Board's sudden opposition to toll road reveals favoritism
2. [Pittsburgh Post-Gazette](#), February 9, 2003 Sunday, TWO STAR EDITION, Pg.B-7, 800 words, TOP OF THE CHARTS; TWENTY-FOUR YEARS OF CONSISTENT ADVICE FOR WRITERS



Defining "The Language"

Why include 'all the words'? Why bother to define simple words?

Cf defs in Nathan Bailey's dict., 1721:

cat: "a creature well known"

black: "a colour"

strawberry: "a well known fruit"



Defining the Compass of the Language

Let any man of correct taste cast his eye on such words as *denominable, opionatry, ariolation, assation, clancular,* and *comminuible*, and let him say whether a dictionary which gives *thousands* of such items, as *authorized English words*, is a safe standard of writing. Noah Webster on Johnson's *Dictionary*

Words have been admitted in the language that are not only disreputable in origin, not only offensive in all their associations, not only vulgar in essence, but unfit at all points for survival. The *New York Herald* (1890) on Funk & Wagnall's inclusion of *chesty "bold"*

"...that most monstrous of non-words." *Life Magazine* on Webster's *Third International's* inclusion of *irregardless*

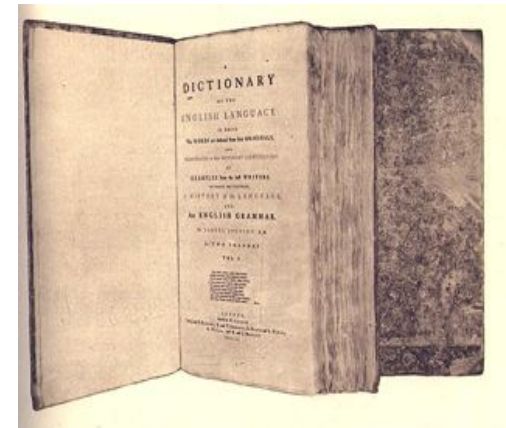
a



Symbolism of the dictionary's form

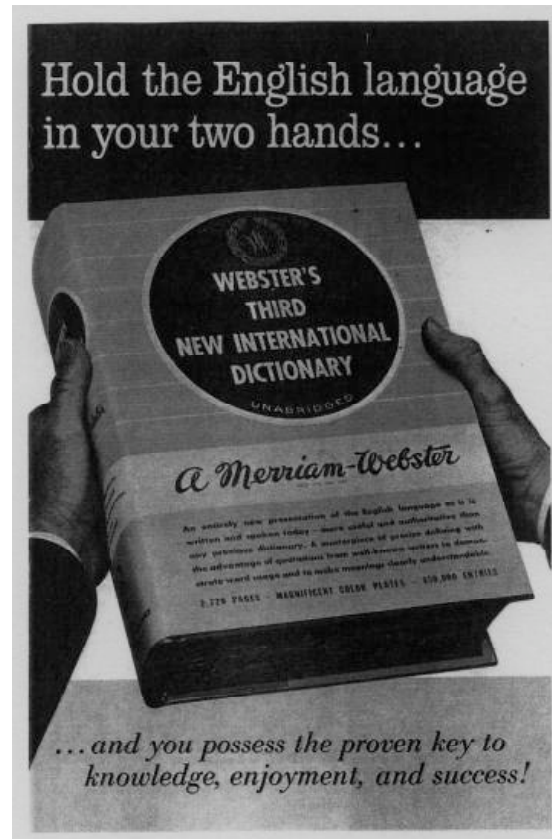
A monument, like a folio dictionary, is immovable and huge, inviolable and absolute in its expression of authority and its solidification of public memory; it exercises its authority as it represents it." (A. Reddick)

There is in [Johnson's *Dictionary*] a kind of architectural nobleness; it stands there like a great solid square-built edifice; you judge that a true builder did it." (Thos. Carlyle)





The Dict. as an "Inscription in Space": "Is X a word?"



(Note also the importance of visible compression...)



The Form of Collections, 1



Library of the
Escorial, 1543



E-L. Boulée, plan for the
Bibliothèque du Roi,
1785



Labrouste, Bibliothèque
Ste. Geneviève, 1851



The Form of Collections, 2: The classical version

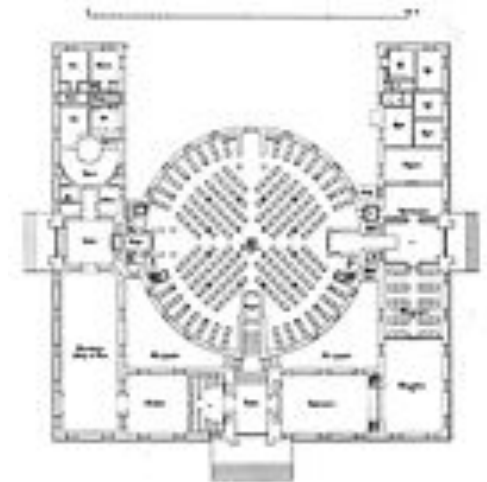
Smirke,
British Museum
Reading
Room, 1851



Pelz/Casey Reading
Room, LOC, ca. 1898



Labrouste, Bibliothèque
Nationale 1868



Asplund, Stockholm City
Library, 1928



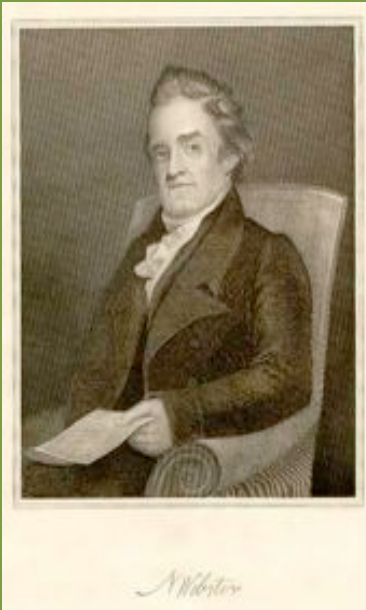
Circumscription of Knowledge: Brutalist Interpretations



D. Perrault, Bibliothèque Nationale de France, 1994



The Americanization of the Dictionary



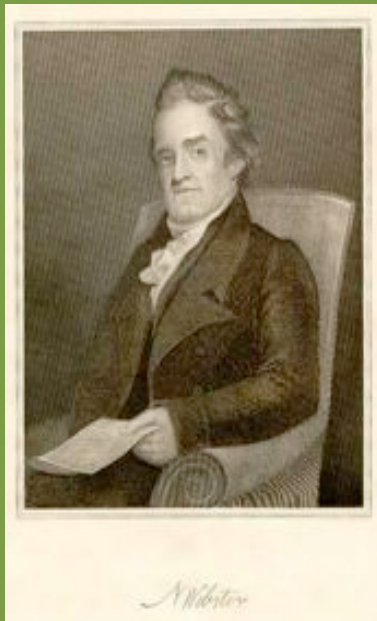
Noah Webster

You have corrected the dangerous doctrines of European powers, correct now the languages you have imported... The American language will thus be as distinct as the government, free from all the follies of unphilosophical fashion, and resting upon truth as its only regulator. William Thornton, 1793.

From the changes in civil policy, manners, arts of life, and other circumstances attending the settlement of English colonies in America, most of the language of heraldry, hawking, hunting, and especially that of the old feudal and hierarchical establishments of England will become utterly extinct in this country; much of it already forms part of the neglected rubbish of antiquity. Noah Webster, 1806



The Americanization of the Dictionary



Cf Webster's Spelling reforms: *honor*, *theater*, etc., but also *tung*, *iz*...

"A capital advantage of this [spelling] reform in these States would be, that it would make a difference between the English orthography and the American.... I am confident that such an event is an object of vast political consequence."



Development of the Dictionary



1857-1928: Preparation of the OED; historical record of the entire language...

Abbreviate (ăbrĭvĭ,ăt), *v.*, also 5-7 **abbreviate**. [f. ABBREVIATE *ppl. a.*; or on the analogy of *vbs.* so formed; see -ATE. A direct representative of L. *abbreviāre*; as ABRIDGE, and the obs. ABREVI, represent it indirectly, through OFr. *abregier* and mid. Fr. *abrĕvier*. Like the latter, *abbreviate*, was often spelt *a-breviate* in 5-7.] To make shorter, shorten, cut short in any way.

1530 PALSGR., *I abrevyate: I make a thyng shorte, Je abregz.*

1625 BACON *Essays* xxiv. 99 (1862) But it is one Thing to Abbreviate by Contracting, Another by Cutting off.

† *l. trans.* To make a discourse shorter by omitting details and preserving the substance; to abridge, condense. *Obs.*

a 1450 *Chester Pl.* I. 2 (Sh. Soc.) This matter he abbreviated into playes twenty-foure. 1592 GREENE *Conny catching* III. 16 The queane abreviated her discourse. 1637 RALEIGH *Mahomet* 34 Abreviated out of two Arabique writers translated into Spanish. 1672 MANLEY *Interpreter* pref., I have omitted several Matters . . . contracted and abbreviated Others.

† *b.* To make an abstract or brief of, to epitomize. *Obs.*

c 1450 TREVISA *Higden's Polychr.* I. 21 (Rolls Ser.) Trogus Pompeius, in hys xith iiii. bookes, allemoste of alle the stories of the worlde, whom Iustinus his disciple did abreviate.

1603 FLORIO *Montaigne* (1634) 627 To reade, to note, and to abreviate Polibius. 1648-9 *The Kingdomes Weekly Intelligencer* Jan. 16 to 23 The high court of Justice did this day sit again concerning the triall of the King. The charge was brought in and abreviated.

† *c. Math.* To reduce (a fraction) to lower terms. *Obs.*

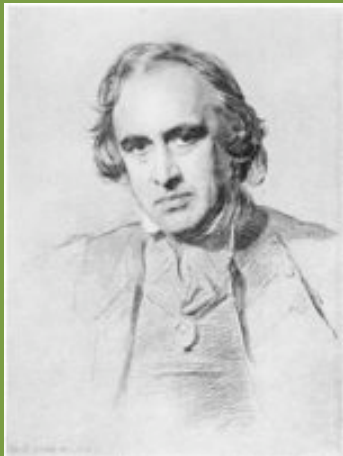
1796 *Mathem. Dict.* I. 2 To abbreviate fractions in arithmetic and algebra, is to lessen proportionally their terms, or the numerator and denominator.



James Murray



Political Significance of the OED



We could scarcely have a lesson on the growth of our English tongue, we could scarcely follow upon one of its significant words, without having unawares a lesson in English history as well, without not merely falling upon some curious fact illustrative of our national life, but learning also how the great heart which is beating at the centre of that life, was being gradually shaped and moulded.

Richard Chevenix Trench